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Docket No.: GR 99 P 1337

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5/14/04

MAIL STOP: APPEAL BRIEF-PATENTS

By: _____ Date: April 23, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applic. No.	:	09/281,695 Confirmation No.: 7537
Inventor	:	Jürgen Brieskorn et al.
Filed	:	March 30, 1999
Title	:	Communications System for the Control of a Communications Terminal by a Remote Computer
TC/A.U.	:	2142
Examiner	:	Hai V. Nguyen
Customer No.	**:**	**24131**

Hon. Commissioner for Patents
Alexandria, VA 22313-1450

BRIEF ON APPEAL

S i r :

This is an appeal from the final rejection in the Office action dated November 25, 2003, finally rejecting claims 1-20.

Appellants submit this *Brief on Appeal* in triplicate, including payment in the amount of $330.00 to cover the fee for filing the *Brief on Appeal*.

Real Party in Interest:

This application is assigned to Siemens Aktiengesellschaft of München, Germany. The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1-20 are rejected and are under appeal. No claims were cancelled.

Status of Amendments:

No claims were amended after the final Office action. *A Notice of Appeal* was submitted on March 1, 2004.

Summary of the Invention:

As stated in the first paragraph on page 1 of the specification of the instant application, the invention relates to the telecommunications field. Specifically, the invention relates to a communications system having a communications terminal which can be connected via a first network to at least one further communications terminal and

which contains a central controller. The controller controls the function of the communications terminal by processing instructions of a program section.

Appellants explained on page 13 of the specification, line 16, that, referring now to the sole figure of the drawing in detail, there is seen a communications system having a communications terminal E1 which is connected to a computer R and to a further communications terminal E2. The structure of the communications terminal E1 will now be explained. A handset 20, a visual display unit 30 and a keypad 40 form a user interface of the communications terminal E1. A first communications controller 50 controls the data exchange with the second communications terminal E2. A first and second converter 60 and 70 and a second communications controller 80 are responsible for data exchange with the computer R. A central controller 10 controls the functions of the communications terminal E1, for example the evaluation of key inputs of a user of the communications terminal E1.

It is outlined on page 14 of the specification, line 5, that the voice data of the user which are recorded by a non-illustrated microphone of the handset 20 and digitized by an A/D converter (analog-to-digital converter) are accepted by the central controller 10 and forwarded to the first

communications controller 50. From the voice data, the first communications controller 50 forms data packets in accordance with an H.323 protocol. The H.323 protocol defines a method for exchanging voice data between the communications terminals E1 and E2 which are connected to one another via an Internet connection V1. Via a line interface 55, the first communications terminal E1 has access to a computer network, not shown here, over which the Internet connection V1 is established. The first communications controller 50 prepares received data packets containing digitized voice data accordingly, and passes them to the central controller 10, which forwards the packets to a non-illustrated D/A converter (digital-to-analog converter) of the handset 20. The analog voice signals generated by the D/A converter are output by a loudspeaker of the handset 20.

As set forth in the last paragraph on page 14 of the specification, line 25, the central controller 10 likewise evaluates user inputs that affect the behavior of the first communications terminal E1, for example the lifting of the handset 20. If, for example, the user lifts the handset 20, the voltage level of a control line connecting the handset 20 to the central controller 10 changes. The central controller 10 registers this changed voltage level and writes a first value "1" into a memory cell Z1 of a memory 90 of the

communications terminal E1. This first value "1" indicates that the handset 20 was lifted. A second value "0" in the memory cell Z1 indicates that the handset 20 is on-hook. The contents of further memory cells of the memory 90 indicate statuses of further functional units of the communications terminal E1, for example of the keypad.

Appellants described on page 15 of the specification, line 13, that the first converter 70 knows the assignment of memory cells to functional units of the communications terminal E1. If the central controller 10 has changed the contents of a memory cell, it sends the address of the changed memory cell to the first converter 70 over a first address line 100. The first converter 70 reads the first value "1", for example, from the memory cell Z1 and from it forms a CSTA data packet (CSTA = Computer Supported Telephone Application) with the information about the lifted handset 20. The CSTA data packet is passed to the second communications controller 80, which transmits it to a communication unit 120 of the computer R over a LAN connection V2 (LAN = Local Area Network).

Appellants explained on page 16 of the specification, line 1, that a program 130, which the computer R processes, evaluates the received data packet. In this example the following feature is made available to the user with the aid of the

program 130: as soon as the user lifts the handset 20 to dial a telephone number, the telephone number most frequently dialed by the user is displayed on the visual display unit 30. If the user presses a redial key of the keypad 40, a connection is established to the subscriber having the displayed telephone number.

It is further explained on page 16 of the specification, line 11, that, after evaluating the received CSTA data packet, the program 130 uses a list L of dialed telephone numbers to determine a digit string of the most frequently dialed telephone number. The list L is stored in a memory 140 of the computer R. The most frequently dialed telephone number is determined with reference to the list L.

Appellants also outlined on page 16 of the specification, line 18, that the program 130 composes a CSTA message INFO with which data to be output on the visual display unit are sent to the communications terminal E1. The communication unit 120 accepts the CSTA message INFO from the program 130 and forms a further CSTA data packet and sends the latter to the communications terminal E1 over the LAN connection V2.

It is stated in the last paragraph on page 16 of the specification, line 25, that the second communications

controller 80 receives the CSTA data packet and passes the CSTA message INFO it contains to the second converter 60. While the second converter 60 creates an instruction for outputting the digit string on the visual display unit 30 from the CSTA message INFO, the second communications controller 80 is again available for sending and receiving CSTA data packets. The second converter 60 writes the instruction created into a memory section A of the memory 90 and notifies the central controller 10 of the address of said memory section A via a second address line 110. The central controller 10 reads the instruction and executes it, so that the digit string is displayed on the visual display unit 30.

Appellants explained on page 17 of the specification, line 13, that the central controller 10 transmits the key code of the key the user presses next to the computer R. If the key code transmitted is the key code of the redial key, the program 130 composes a sequence of CSTA instructions which write the digit string of the most frequently dialed telephone number into a non-illustrated keypad buffer of the communications terminal E1.

It is mentioned in the last paragraph on page 17 of the specification, line 21, that, with the CSTA instructions, the communication unit 120 forms CSTA data packets and transmits

the CSTA data packets to the second communications controller 80. The second converter 60 converts the CSTA commands into control instructions, which are executed by the central controller 10 and which write the key codes corresponding to the digit string into the keypad buffer. The central controller 10 then reads the key codes out of the keypad buffer and passes them to the first communications controller 50. The latter establishes the Internet connection V1 to the communications terminal E2 to which the most frequently dialed telephone number is assigned.

Appellants outlined on page 18 of the specification, line 7, that, if the user had pressed a numerical key of the keypad 40 instead of the redial key, the program 130 would have created a different instruction sequence: firstly all characters displayed on the visual display unit 30 would have been removed. The digit dialed by the user would then be displayed and passed to the first communications controller 50.

Appellants further outlined on page 18 of the specification, line 14, that it can be seen that the central controller 10 and the first communications controller 50 have not been changed in order to realize the feature described above. Communication between the two communications terminals E1 and E2 takes place in accordance with the method defined by the

H.323 protocol. The digit string is also transmitted to the computer R in order to update the list L with the dialed telephone numbers.

It is set forth in the last paragraph on page 18 of the specification, line 22, that, in the exemplary embodiment, the program 130 evaluates the keypad inputs, selects the corresponding telephone number from the list L and transmits an instruction sequence to display the telephone number on the visual display unit to the communications terminal E1. The procedure described has the advantage that after the communications terminal E1 has been replaced by another device, for example because of a defect in the communications terminal E1, the same telephone number is displayed to the user on the visual display unit 30. The example shows how resources of the computer R, here the memory 140, are used to make a new feature available to the user of the communications terminal E1. It should moreover be noted that the functions for which program sections are stored in a read-only memory (ROM) of the communications terminal E1 are available even if the computer R fails or the LAN connection V2 is not present.

References Cited:

U.S. Patent No. 5,533,102 (Robinson et al.), dated July 2, 1996;

U.S. Patent No. 6,052,461 (Lam), dated April 18, 2000.

Issues:

1. Whether or not claims 1 and 13-20 are anticipated by Robinson et al. under 35 U.S.C. §102(b).

2. Whether or not claims 2-4 are obvious over Robinson et al. in view of the well-known feature of using Internet protocol under 35 U.S.C. §103.

3. Whether or not claims 5-8 are obvious over Robinson et al. in view of the well-known feature of using H.323 protocol under 35 U.S.C. §103.

4. Whether or not claim 9 is obvious over Robinson et al. in view of the well-known feature of using the Internet connection under 35 U.S.C. §103.

5. Whether or not claims 10-12 are obvious over Robinson et al. in view of Lam under 35 U.S.C. §103.

Grouping of Claims:

Claim 1 is independent. Claims 2-20 depend on claim 1. The patentability of claims 2-20 is not separately argued. Therefore, claims 2-20 stand or fall with claim 1.

Arguments:

In item 4 on page 2 of the above-mentioned Office action, claims 1 and 13-20 have been rejected as being anticipated by Robinson et al. under 35 U.S.C. § 102(b).

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

> said first communications terminal having a central controller transmitting status data relating to functional features of said first communications terminal to said remote computer via a second network, said remote computer being programmed to automatically evaluate the status data and to generate an instruction sequence from the status data and to transmit the instruction sequence to said first communications terminal via the second network; and
>
> said central controller employing the instruction sequence as a program section and providing the functional features to said first communications terminal upon processing the program section. (Emphasis added.)

According to the invention of the instant application, the remote computer (R) is programmed to automatically generate an instruction sequence from the status data and to transmit the instruction sequence to the first communications terminal (E1) via the second network (V2). In contrast, Robinson et al. teach notifying a user at a personal computer about incoming calls and call states in an auto-attendant system (see column 6, lines 7-13) and letting the user decide on a further

processing (e.g. hold, re-route, accept) of the respective calls (see column 6, lines 25-27 and column 8, lines 5-9).

According to the teaching of Robinson et al., instruction sequences for changing states of incoming calls are not automatically generated from transmitted call status data by a suitably programmed computer. Rather, user interaction is required to evaluate call status data and to take measures from reported call status data by manually selecting an appropriate request to change a call state. Of course, selections done by users are more susceptible to errors and failures, which are minimized by an automatic generation of instruction sequences according to the invention of the instant application.

The examiner has stated in lines 4-6 on page 3 of the Office action that in Robinson et al. the state register object 214 stores the state change request and delivers it to the state controller 206 via bi-directional link 46. However, there is neither an explicit disclosure nor an indication in Robertson et al. that a state change request is transmitted via the bi-directional link 46. Rather, a state change request is transmitted from the client application 212 running on the called party's personal computer 14 as a second communications terminal to the state registry object 214 of the auto-attendant

system 200 as a first communications terminal via a Local Area Network 30 (see Fig. 2). Robinson et al. explicitly describe in column 5, lines 58-62 (referring to Fig. 2) that the communications link from the auto-attendant system 200 implemented by the call processor system 38 (see also column 4, line 62 to column 6, line 5) to the called party's personal computer 14 is accomplished via the Local Area Network 30. Since nothing contrary is disclosed in the specification and especially in Fig. 2 of Robinson et al., it has to be assumed that this also applies to the reverse direction.

Further, Robinson et al. also do not disclose that the functional features are made available in the first communications terminal by processing the instruction sequence as a program section. The advantage of this feature is that the functional features are controlled and if necessary changed without intervention in the communications terminal being required (see page 2, lines 11-16 and page 18, line 22 to page 19, line 11 of the specification of the instant application).

According to the invention of the instant application, the evaluation of the status data for generating the instruction sequence is done by the remote computers. In contrast, in Robinson et al. evaluating call status data is up to the 1, 3-

9, 11, and 15 responsive user being notified of call states (see column 6, lines 7-13 and column 8, lines 5-9). Therefore, Robinson et al. teach an "open loop" system depending on user interaction whereas the invention of the instant application represents a "closed loop" system in which no user interaction is required and desired (see page 2, lines 10-16 of the specification) for controlling a communication terminal's functionality.

In addition, Robinson et al., contrary to the Examiner's assumption, fail to disclose status data relating to functional features of a communication terminal. In the sections cited by the Examiner, Robinson et al. actually describe transmitting state change requests originating from a client application to an auto-attendant system (see column 6, lines 25-34). However, mere state change requests do not represent current states of a system in contrast to status data which actually serve to monitor or observe a system's internal state.

Further, Robinson et al. also fail to disclose a remote computer evaluating the status data and generating an instruction sequence to be executed by a controller of a communications terminal. In contrast, Robinson et al. describe sending API (application programming interface)

return codes upon a successful state change or error codes in the negative case (see column 6, lines 35-47). Contrary to the Examiner's assumption in item 30 of the above-mentioned Office action, these return or error codes merely serve to indicate a successful or a failed state change. In no way are these codes executed by a controller of a communication terminal.

Moreover, the Examiner fails to demonstrate in item 30 of the above-mentioned Office action that a controller of a communication terminal executes an instruction sequence in order to provide desired functional features to the communications terminal. In the cited sections, Robinson et al. just teach providing a notification of a call state change, given that a session has been established to receive such a notification (see column 6, lines 55-67). However, this does not imply at all that the respective notification is used to control functional features in a communication terminal.

Clearly, Robinson et al. do not show "said first communications terminal having a central controller transmitting status data relating to functional features of said first communications terminal to said remote computer via a second network, <u>said remote computer being programmed to</u>

automatically evaluate the status data and to generate an instruction sequence from the status data and to transmit the instruction sequence to said first communications terminal via the second network; and said central controller employing the instruction sequence as a program section and providing the functional features to said first communications terminal upon processing the program section", as recited in claim 1 of the instant application.

Claim 1 is, therefore, believed to be patentable over Robinson et al. and since claims 13-20 are ultimately dependent on claim 1, they are believed to be patentable as well.

In item 15 on page 6 of the above-mentioned Office action, claims 2-4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. in view of the well-known feature of using Internet protocol.

As discussed above, claim 1 is believed to be patentable over the art. Since claims 2-4 are ultimately dependent on claim 1, they are believed to be patentable as well.

In item 17 on page 6 of the above-mentioned Office action, claims 5-9 have been rejected under 35 U.S.C. § 103(a) as

being unpatentable over Robinson et al. in view of the well-known feature of using H.323 protocol.

As discussed above, claim 1 is believed to be patentable over the art. Since claims 5-9 are ultimately dependent on claim 1, they are believed to be patentable as well.

In item 22 on page 7 of the above-mentioned Office action, claim 9 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. in view of the well-known feature of using the Internet connection.

As discussed above, claim 1 is believed to be patentable over the art. Since claim 9 is ultimately dependent on claim 1, it is believed to be patentable as well.

In item 25 on page 8 of the above-mentioned Office action, claims 10-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al. and further in view of Lam.

As discussed above, claim 1 is believed to be patentable over the art. Since claims 10-12 are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the forgoing, the honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

Respectfully submitted, LAURENCE A. GREENBERG
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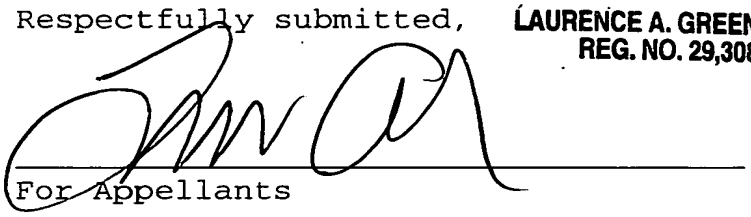

For Appellants

YC/bb

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Appendix - Appealed Claims:

1. A communications system, comprising:

a first communications terminal to be connected, via a first network, to a second communications terminal;

a remote computer;

said first communications terminal having a central controller transmitting status data relating to functional features of said first communications terminal to said remote computer via a second network, said remote computer being programmed to automatically evaluate the status data and to generate an instruction sequence from the status data and to transmit the instruction sequence to said first communications terminal via the second network; and

said central controller employing the instruction sequence as a program section and providing the functional features to said first communications terminal upon processing the program section.

2. The communications system according to claim 1, wherein said controller transmits the data via the first network in accordance with an Internet Protocol.

3. The communications system according to claim 2, wherein the second network transfers data in the Internet Protocol.

4. The communications system according to claim 3, wherein the first and second network is the Internet.

5. The communications system according to claim 2, wherein said first and second communications terminals communicate according to a H.323 protocol.

6. The communications system according to claim 5, which further comprises a first communications controller controlling a communication with said second communications terminal.

7. The communications system according to claim 6, wherein said remote computer and said first communications terminal communicate in accordance with a CSTA protocol.

8. The communications system according to claim 6, which further comprises a second communications controller controlling a communication between said first communications terminal and said remote computer.

9. The communications system according to claim 8, which further comprises a shared interface connected to said first and second communications controllers and connecting said first and second communications controllers to the Internet.

10. The communications system according to claim 8, which further comprises a first converter connected to receive the status data from said central controller, said first converter adapting the status data to a data format defined by the CSTA protocol and forwarding the status data to said second communications controller.

11. The communications system according to claim 1, wherein the instruction sequence generated by the remote computer contains instructions defined by the CSTA protocol.

12. The communications system according to claim 11, which further comprises a converter connected between the remote computer and said central controller, said converter converting CSTA instructions transmitted from the remote computer into control instructions for said central controller.

13. The communications system according to claim 1, wherein said central controller is configured for reading keyboard codes of keys pressed from a keypad buffer.

14. The communications system according to claim 13, wherein the status data contain key codes of keys pressed.

15. The communications system according to claim 13, wherein said controller is programmed to generate from the status data instructions writing key codes into the keypad buffer.

16. The communications system according to claim 1, wherein said first communications terminal includes a visual display unit, and said remote computer is programmed to generate from the status data instructions which output data on said visual display unit.

17. The communications system according to claim 1, wherein said remote computer is programmed to generate from the status data instructions for producing sound signals.

18. The communications system according to claim 1, wherein the status data contain a telephone number of said second communications terminal calling said first communications terminal.

19. The communications system according to claim 1, wherein the remote computer is programmed to establish a connection to said first communications terminal.

20. The communications system according to claim 19, wherein a data item identifying said first communications terminal is transmitted with the status data.